

**R E M A R K S**

**I.     Introduction**

In response to the pending Office Action, Applicants have incorporated the limitations of claim 2 into independent claim 1 and cancelled claims 2 and 3, without prejudice. In addition, claims 1 and 4 have been further amended to clarify the subject matter of the present disclosure and to overcome the § 112 rejections. In addition, claims 5 and 6 have been added. Support for new claims 5 and 6 may be found, for example, on page 7, line 7 and page 17, line 24 of the specification. No new matter has been added.

For the reasons set forth below, Applicants respectfully submit that all pending claims as currently amended are patentable over the cited prior art.

**II.    The Rejection Of Claim 1 Under 35 U.S.C. § 102**

Claim 1 stands rejected under 35 U.S.C. § 102(e) as being anticipated by Eylem et al. (USP No. 7,049,030). As claim 1 has been amended to include all of the limitations of claim 2, this rejection is now moot.

**III.   The Rejection Of Claims 2-4 Under 35 U.S.C. § 103**

Claims 2-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Eylem in view of Noriyuki et al. (JP 2000-082503). As the limitations of claim 2 have been incorporated into independent claim 1, Applicants will refer to amended independent claim 1 in addressing the rejection of claim 2. Applicants respectfully traverse this rejection for at least the following reasons.

Amended independent claim 1 recites an alkaline battery comprising: a negative electrode including a negative electrode mixture that contains a zinc alloy as an active material,

the zinc alloy containing at least aluminum, an alkaline electrolyte, and a positive electrode, wherein the alkaline electrolyte comprises an aqueous KOH solution and LiOH and an aluminum compound that are dissolved in the aqueous KOH solution, wherein a portion of the alkaline electrolyte is contained in the negative electrode mixture, and wherein the amounts of the LiOH and the aluminum compound contained in the portion of the alkaline electrolyte in the negative electrode mixture are 0.1 to 2 wt % and 0.001 to 0.2 wt % of the negative electrode mixture, respectively.

One feature of amended independent claim 1 is that the negative electrode contains an alkaline electrolyte having LiOH and an aluminum compound contained in the portion of the alkaline electrolyte in the negative electrode mixture in an amount of 0.1 to 2 wt % and 0.001 to 0.2 wt % of the negative electrode mixture, respectively. As a result of this feature, an alkaline battery having excellent discharge capacity may be obtained.

It is alleged that Eylem discloses an alkaline electrolyte containing the claimed range of the aluminum compound. Applicants respectfully disagree. Col. 4, lines 12-14 of Eylem state that the amount of aluminum is from 1 to 8 wt%. While lines 19-20 of col. 3 states that “less aluminum can be used”, it still does not disclose the precise range of 0.001 to 0.2% as recited in amended independent claim 1 of the present disclosure. Moreover, even if Eylem did encompass the claimed range of amended independent claim 1, Eylem would still not render claim 1 obvious, because the claimed ranges show unexpected and superior results compared to the ranges outside the claimed range of LiOH and the aluminum compound, as shown in Tables 2 and 3.

For example, Table 2 on page 15 shows how materials A5-A12, B5-B12, and C5-C12 exhibit far superior P% and discharge capacity over those outside the claimed ranges in amended independent claim 1. Moreover, with regard to claim 4, Table 3 shows how the claimed ratio of alkaline electrolyte to the zinc alloy of the negative electrode (0.1 to 2) exhibits far superior results over batteries with ratios outside the claimed range. As such, it is clear that the combination of Eylem and Noriyuki fail to render the present claims obvious.

In order to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. As Eylem and Noriyuki fail to teach or suggest a negative electrode including a negative electrode mixture that contains an alkaline electrolyte, wherein said alkaline electrolyte comprises an aqueous KOH solution and LiOH and an aluminum compound that are dissolved in said aqueous KOH solution, wherein a portion of the alkaline electrolyte is contained in the negative electrode mixture, and wherein the amounts of the LiOH and the aluminum compound contained in the portion of the alkaline electrolyte in said negative electrode mixture are 0.1 to 2 wt % and 0.001 to 0.2 wt % of the negative electrode mixture, respectively, it is submitted that Eylem and Noriyuki do not render amended independent claim 1 obvious. Accordingly, Applicants submit that claim 1 is allowable and patentable over the cited prior art.

**IV. All Dependent Claims Are Allowable Because The Independent Claim From Which They Depend Is Allowable**

Under Federal Circuit guidelines, a dependent claim is nonobvious if the independent claim upon which it depends is allowable because all the limitations of the independent claim are contained in the dependent claims, *Hartness International Inc. v. Simplimatic Engineering Co.*, 819 F.2d at 1100, 1108 (Fed. Cir. 1987). Accordingly, as amended claim 1 is patentable for the

reasons set forth above, it is respectfully submitted that all pending dependent claims are also in condition for allowance.

Moreover, as new claims 5 and 6 are dependent on independent claim 1, and as claim 1 is allowable for the reasons given above, new claims 5 and 6 are allowable as well.


**V. Conclusion**

Having fully responded to all matters raised in the Office Action, Applicants submit that all claims are in condition for allowance, an indication of which is respectfully solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

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